

# Work Order ID 144888

Tuesday, April 26, 2016 3:50:39 PM

**\*144888\***

Page 1

Item ID: D2345 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Lock Channel  
 Start Date: 4/27/2016 Start Qty: 10.00 **\*10\*** Cust Item ID:  
 Required Date: 4/29/2016 Req'd Qty: 10.00 **\*10\*** Customer:  
 Reference:

Approvals: Process Plan: em SM Date: 16/04/26 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| Draw Nbr                       | Revision Nbr             |                      |         |        |              |               |               |                  |                |
| D2345                          | Rev A                    |                      |         |        |              |               |               |                  |                |

100

0.00

**\*100\***

FLOW WATER JET

Waterjet

Memo

0.40

FLOW CNC Waterjet

1-Cut as per Dwg D2345 Dwg Rev: A Prog Rev: A 2-  
 Deburr if necessary

(12)

pc 16/04/27

110

QC2- Inspect parts off machine FAI/FAIB

0.00

**\*110\***

QC

Memo

0.10

Quality Control

(12)

pc 16/04/27

120

QC8- Inspect parts - second check

0.00

**\*120\***

QC

Memo

0.20

Quality Control

(12)

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Item ID: D2345

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Lock Channel

Start Date: 4/27/2016 Start Qty: 10.00

**\*10\***

Cust Item ID:

Required Date: 4/29/2016 Req'd Qty: 10.00

**\*10\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                                                        | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|---------------------------------------------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 130                            | Small Fab                                                                       | 0.00                 |         |        |              |               |               |                  |                |
| <b>*130*</b>                   | Small Fab                                                                       | 0.00                 |         |        |              |               |               |                  |                |
| Small Fab                      | Memo<br>Deburr if necessary.                                                    | 0.00                 |         |        |              |               |               |                  |                |
|                                |                                                                                 |                      |         |        |              |               |               |                  |                |
| 140                            | NC BRAKE                                                                        | 0.00                 |         |        |              |               |               |                  |                |
| <b>*140*</b>                   | Brake NC                                                                        | 0.30                 |         |        |              |               |               |                  |                |
| Brake NC                       | Memo<br>Form as per Dwg D2345 using DT8241<br>Remove tooling tab and buff flush |                      |         |        |              |               |               |                  |                |
| 150                            | QC5- Inspect part completeness to step on W/O                                   | 0.00                 |         |        |              |               |               |                  |                |
| <b>*150*</b>                   | QC                                                                              | 0.20                 |         |        |              |               |               |                  |                |
| Quality Control                | Memo                                                                            |                      |         |        |              |               |               |                  |                |

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**Work Order ID 144888**

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Item ID: D2345

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Lock Channel

Start Date: 4/27/2016 Start Qty: 10.00

**\*10\***

Cust Item ID:

Required Date: 4/29/2016 Req'd Qty: 10.00

**\*10\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***  
Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                    | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|---------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 160                            | Identify as per dwg & Stock Location: _____ | 0.00                 |         |        |              |               |               |                  |                |
| <b>*160*</b>                   |                                             |                      |         |        |              |               |               |                  |                |
| Packaging                      |                                             |                      |         |        |              |               |               |                  |                |
| Packaging                      |                                             |                      |         |        |              |               |               |                  |                |
|                                | <b>Memo</b>                                 | 0.10                 |         |        |              |               |               |                  |                |
|                                | LOCATION : GA                               |                      |         |        |              |               |               |                  |                |
| 170                            | QC21- Final Inspection - Work Order Release | 0.00                 |         |        |              |               |               |                  |                |
| <b>*170*</b>                   |                                             |                      |         |        |              |               |               |                  |                |
| QC                             |                                             |                      |         |        |              |               |               |                  |                |
| Quality Control                | <b>Memo</b>                                 | 1.00                 |         |        |              |               |               |                  |                |

DAS  
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9-89

MUS

MAY 02 2016

Lm 16/04/29

# Picklist Print

Page 1

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Work Order ID: 144888

**\*144888\***

Parent Item: D2345

**\*D2345\***

Parent Item Name: Lock Channel

Start Date: 4/27/2016

Required Date: 4/29/2016

Start Qty: 10.00

Required Qty: 10.00

Comments: IPPRevB99.05.31Re-formatDM  
IPP Rev:C Now on Waterjet 06-10-26 JLM

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| M304S18GA                       |                        | Purchased     | No          |                     |                  | 100             | sf                 | 387.0732       | 0.0528      | 0.555789     |               |                |        |

**\*M304S18GA\***

304/316 .050 Sheet

**\*\***

*Del 16/04/27*

| <u>Location</u> | <u>Loc Qty</u> | <u>Loc Code</u> |
|-----------------|----------------|-----------------|
| MAT020          | 165.721        |                 |
| M133328         | 112.496        |                 |
| M133587         | 53.225         |                 |
| MAT20           | 128            |                 |
| M134580         | 128            |                 |
| TPI             | 93.3522        |                 |
| M134604         | 93.3522        |                 |

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                              |  |                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |                                                                                                                                                     |  |
|--------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____ |  | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> |  | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>             Skid-tube <input type="checkbox"/><br/>             Machining <input type="checkbox"/><br/>             Thermoforming <input type="checkbox"/><br/>             Large Fab <input type="checkbox"/> </div> <div>             Cross tube <input type="checkbox"/><br/>             Small Fab <input type="checkbox"/><br/>             Finishing <input type="checkbox"/><br/>             Composite <input type="checkbox"/> </div> <div>             Water Jet <input type="checkbox"/><br/>             Prod. Eng. Coord. <input type="checkbox"/><br/>             Rec/Store/Packaging <input type="checkbox"/><br/>             Supplier <input type="checkbox"/> </div> <div>             Engineering <input type="checkbox"/><br/>             Quality <input type="checkbox"/><br/>             Other <input type="checkbox"/> </div> </div> |  |  |  |                                                                                                                                                     |  |
| Date :                                                       |  | Step #:                                                                                                                                                                            |  | QTY Effective :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  | MRB (QSI042) Approval<br><br><br>Completed By<br><br><br>Lead hand / Supervisor<br>Approval Verification<br><br><br>QC / QA Coordinator<br>Approval |  |
| Description Work Order Deviation                             |  |                                                                                                                                                                                    |  | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                                                                                                                                                     |  |
|                                                              |  |                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |                                                                                                                                                     |  |

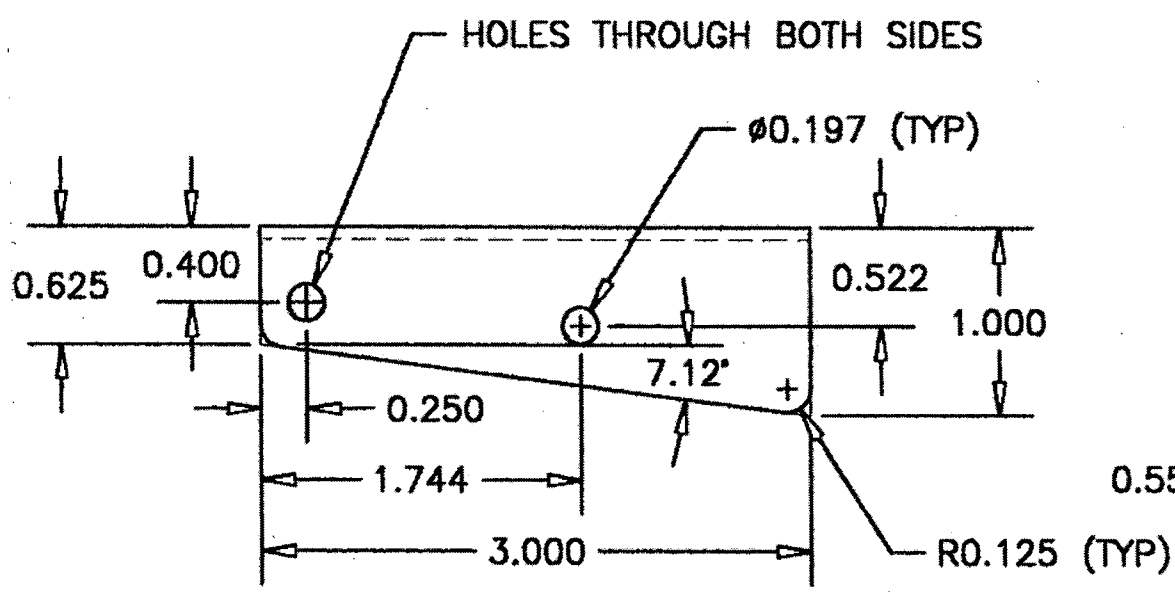
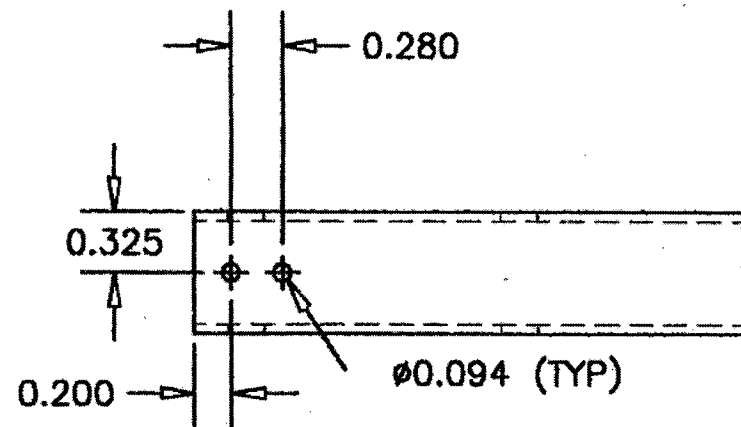
| Root Cause                                  |                          |                       | FAULT CATEGORY           |                        |                          |                                   |                          |                       |                          |                      |
|---------------------------------------------|--------------------------|-----------------------|--------------------------|------------------------|--------------------------|-----------------------------------|--------------------------|-----------------------|--------------------------|----------------------|
| Environment <input type="checkbox"/>        | <input type="checkbox"/> | No Re-verification    | <input type="checkbox"/> | Pressure/Forced        | <input type="checkbox"/> | Temperature/Cure                  | <input type="checkbox"/> | Power Loss/Surge      | <input type="checkbox"/> | Positioned Wrong     |
| Design <input type="checkbox"/>             | <input type="checkbox"/> | Operator              | <input type="checkbox"/> | Bending                | <input type="checkbox"/> | Set-up                            | <input type="checkbox"/> | Folio/Program         | <input type="checkbox"/> | Outside Dimensions   |
| Doc/Data <input type="checkbox"/>           | <input type="checkbox"/> | Offset/Setup          | <input type="checkbox"/> | Centre Not Concentric  | <input type="checkbox"/> | BOM/Route                         | <input type="checkbox"/> | Grain                 | <input type="checkbox"/> | Over/Under tolerance |
| Equip/Tooling <input type="checkbox"/>      | <input type="checkbox"/> | Supplier              | <input type="checkbox"/> | Cracks                 | <input type="checkbox"/> | Broken/Damage/Defect              | <input type="checkbox"/> | Weld                  | <input type="checkbox"/> | Part Incorrect       |
| Handling/Pre <input type="checkbox"/>       | <input type="checkbox"/> | Training              | <input type="checkbox"/> | Crimp/Kink/Ripple/Wave | <input type="checkbox"/> | Inspection Incomplete/Unqualified | <input type="checkbox"/> | Wrong Stock Pulled    | <input type="checkbox"/> | Part Lost/Missing    |
| Material <input type="checkbox"/>           | <input type="checkbox"/> | Use for Testing       | <input type="checkbox"/> | Cuffs                  | <input type="checkbox"/> | Contamination                     | <input type="checkbox"/> | Out of Sequence       | <input type="checkbox"/> | Part Moved           |
| Internal Transport <input type="checkbox"/> | <input type="checkbox"/> | Poor Information      | <input type="checkbox"/> | Crushing               | <input type="checkbox"/> | Countersink                       | <input type="checkbox"/> | Off-set               | <input type="checkbox"/> | Drawing              |
| Tribal Knowledge <input type="checkbox"/>   | <input type="checkbox"/> | Rushing               | <input type="checkbox"/> | Heat Treat             | <input type="checkbox"/> | Cut Too Short                     | <input type="checkbox"/> | Mislabeled            | <input type="checkbox"/> | Finish               |
| LOA <input type="checkbox"/>                | <input type="checkbox"/> | Product Improvement   | <input type="checkbox"/> | Wave/Twist in Tube     | <input type="checkbox"/> | Instructions Incomplete/Unclear   | <input type="checkbox"/> | Fit/Function          | <input type="checkbox"/> | Misread              |
| Substation <input type="checkbox"/>         | <input type="checkbox"/> | Process Improvement   | <input type="checkbox"/> | Marks/Chatter          | <input type="checkbox"/> | Drill Holes                       | <input type="checkbox"/> | Misaligned/off center | <input type="checkbox"/> | Turning Sequence     |
| Past Expiry Date <input type="checkbox"/>   | <input type="checkbox"/> | Manufacturing Process | OTHER : _____            |                        |                          |                                   |                          |                       |                          |                      |
| Misidentified <input type="checkbox"/>      | <input type="checkbox"/> | Past Due              |                          |                        |                          |                                   |                          |                       |                          |                      |





RELEASED  
11/11/02 KLS

|         |            |          |              |                                                              |
|---------|------------|----------|--------------|--------------------------------------------------------------|
| DESIGN  | B WILLIAMS | DRAWN BY | B WILLIAMS   | DART AEROSPACE LTD<br>VICTORIA INTERNATIONAL AIRPORT, CANADA |
| CHECKED | B WILLIAMS | APPROVED |              | REV. A                                                       |
| DATE    | 95-02-21   | TITLE    | LOCK CHANNEL | SHEET 1 OF 2                                                 |
|         |            | SCALE    | 1:1          |                                                              |



MATERIAL: 304/316 SS 0.050 THICK  
BEND RADIUS: 0.032

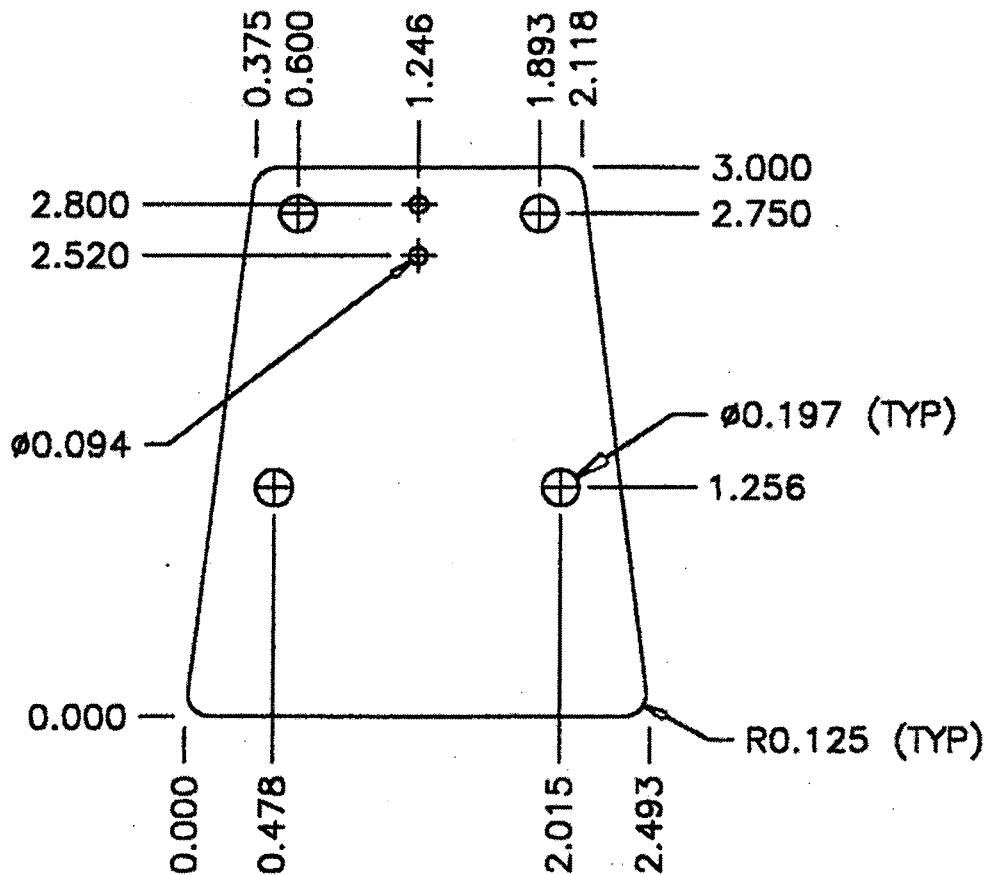
Copyright 1995 by DART AEROSPACE LTD

w/c 144888 2m 16/04/26



|                      |                                |                                                              |              |
|----------------------|--------------------------------|--------------------------------------------------------------|--------------|
| DESIGN               | DRAWN BY                       | DART AEROSPACE LTD<br>VICTORIA INTERNATIONAL AIRPORT, CANADA |              |
| B WILLIAMS           | B WILLIAMS                     | DRAWING NO.                                                  | REV. A       |
| CHECKED<br><i>BW</i> | APPROVED<br><i>[Signature]</i> | D2345                                                        | SHEET 2 OF 2 |
| DATE                 | TITLE                          | SCALE                                                        |              |
| 95:02:21             | LOCK CHANNEL                   | 1:1                                                          |              |

RELEASED  
98.06.02 KE



D2345 FLAT PATTERN  
MATERIAL: 304/316 SS 0.050 THICK